

WHAT IS CLAIMED IS:

1. A portable temperature verification mat adapted to verify accuracy of an IR thermometer, comprising:

- 5           - a sheet of thermo-conductive material having first and second opposing surfaces;
- a black body target on said first surface of the plate adapted to use as a source of infrared radiation for the IR thermometer;
- 10           - a contact thermometer arranged on said first surface adjacent to said black body target for comparison with reading of the IR thermometer focused on the target.

2. The portable mat of claim 1, wherein said second surface is flat and releasably attachable to an  
15 object having a desirable temperature for temperature verification.

3. The portable mat of claim 2, wherein said second surface has a magnetized metallic coating.

4. The portable mat of claim 2, wherein said  
20 second surface has a thermo-conductive adhesive coating.

5. The portable mat of claim 1, wherein said sheet is made from a flexible thermo-conductive magnetic material and releasably attachable to an object having a desirable temperature for temperature verification.

0992313-1101  
FOUO 87E2650

5                    7. The portable mat of claim 1, wherein the  
contact thermometer is a liquid crystal reversible  
temperature label.

9. The portable mat of claim 1, wherein a range of verified temperatures is from -25°C to +100°C.

11. The portable mat of claim 1, wherein the range of verified temperatures is preferably -14°C to +31°C.

12. The portable mat of claim 1, wherein the  
20 range of verified temperatures is preferably 0°C to  
+12°C.

13. The portable mat of claim 1, wherein the range of verified temperatures is preferably +14°C to +31°C.

14. The portable temperature verification mat of claim 2, wherein the contact thermometer is releasably attached to said first surface of the sheet and interchangeable with other thermometers chosen based on desired temperature range.

15. The portable temperature verification mat of claim 14, wherein the contact thermometer is chosen from a plurality of releasably attachable contact thermometers for various temperature ranges provided by packaging for sale with the mat for which the thermometers are to be used.

16. A temperature verification device comprising a plurality of portable temperature verification mats adapted to verify accuracy of an IR thermometer, each mat adapted for a different temperature range and comprising:

- a thermo-conductive flat magnetic sheet having first and second opposing surfaces;

- a black body target on said first surface adapted to use as a source of infrared radiation for the IR thermometer;

- a reversible contact thermometer arranged on

said first surface adjacent to said black body target for comparison with reading of the IR thermometer focused on the target.

17. The device of claim 16, wherein the contact  
5 thermometer is releasably attached to the mat and chosen from a plurality of releasably attachable contact thermometers for various temperature ranges provided by packaging for sale with the device.

10 18. A method of verifying accuracy of an IR thermometer, comprising steps of:

- providing a thermo-conductive mat having a black body target and an adjacent contact thermometer thereon;

15 - releasably attaching the mat to an object having a desirable temperature;

- aiming the IR thermometer at said black body target; and

- comparing reading of the IR thermometer with  
20 reading of said contact thermometer.

19. The method of claim 18, wherein a range of verified temperatures is -25°C to +100°C.

20. The method of claim 18, wherein the range of verified temperatures is preferably -25°C to -3°C.

22. The method of claim 18, wherein the range of verified temperatures is preferably +14°C to +31°C.

24. The method of claim 18, further comprising a step of changing said thermometer on the mat based on desired temperature range.

10            25. The method of claim 18, further comprising  
a step of providing a plurality of mats from different  
thermo-conductive materials for different temperature  
ranges and choosing said mat based on the desirable  
temperature.